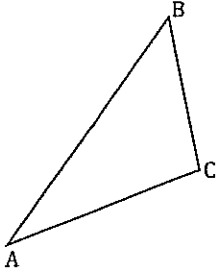


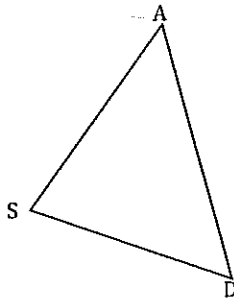
## 6.2 Worksheet

1. Mark the diagram with the given information. Then, find the measure of the indicated angle.

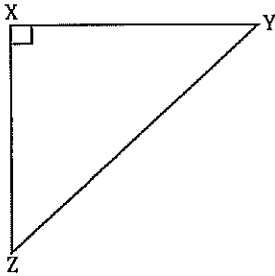
$\angle A = x$ ,  $\angle B = 2x$ ,  $\angle C = 2x + 30^\circ$ . Find  $\angle B$ .



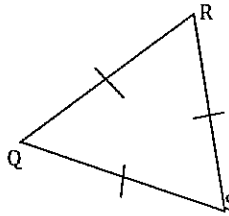
2.  $\angle S = 2x$ ,  $\angle A = x - 23^\circ$ ,  $\angle D = x - 17^\circ$ . Find  $\angle S$ .



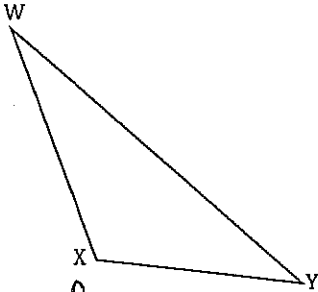
3.  $\angle Y = x + 5^\circ$ ,  $\angle Z = x - 7^\circ$ . Find  $\angle Z$ .



4. Find  $\angle R$ ,  $\angle Q$ , and  $\angle S$ .

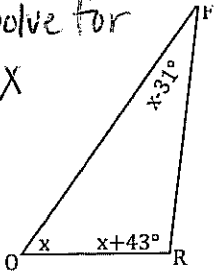


5.  $\angle W = x - 22^\circ$ ,  $\angle X = 3x + 19^\circ$ ,  $\angle Y = x - 17^\circ$ . Find  $\angle X$ .

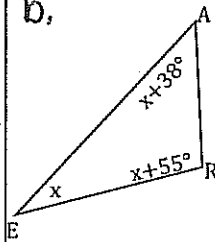


6a. Solve for

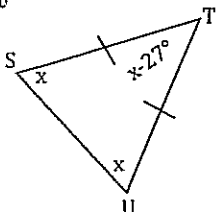
$x$



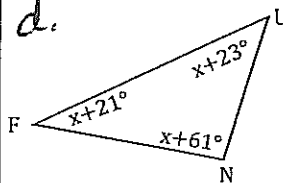
b.



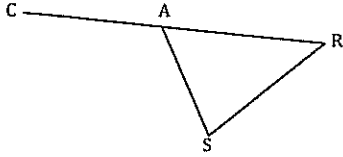
c.



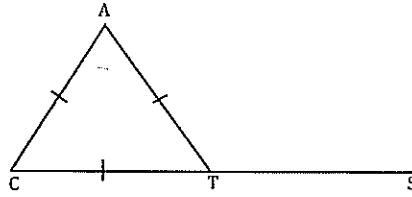
d.



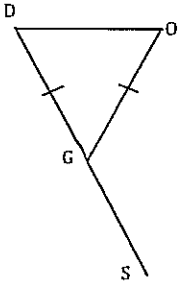
7.  $\angle R = 42^\circ$ ,  $\angle CAS$  is  $19^\circ$  more than twice  $\angle S$ . Find  $\angle CAS$ .



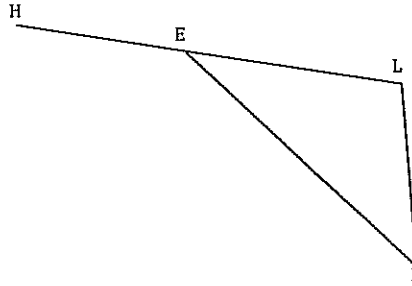
8.  $\triangle CAT$  is equilateral. Find  $\angle ATS$ .



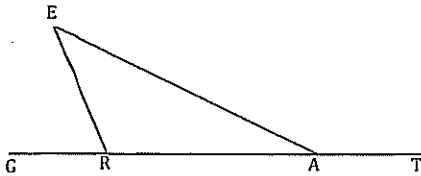
9.  $\triangle DOG$  is isosceles,  $\angle OGS = 148^\circ$ . Find  $\angle D$ .



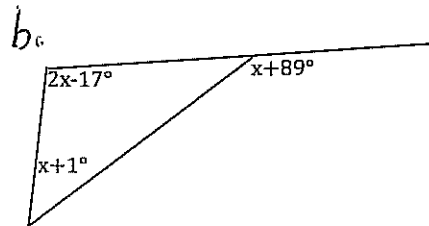
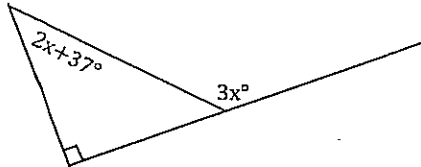
10.  $\angle L$  is  $51^\circ$  more than two times  $\angle P$ ,  $\angle HEP$  is  $9^\circ$  more than four times  $\angle P$ . Find  $\angle HEP$ .



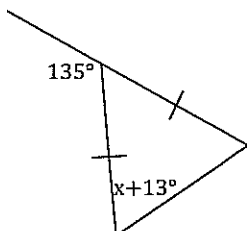
11.  $\angle GRE$  is  $75^\circ$ ,  $\angle EAT$  is  $9^\circ$  more than 3 times  $\angle E$ . Find  $\angle EAT$ .



12a Solve For x



c.



d.

